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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,380	02/07/2006	Atsushi Tanno	OGW0420	9651
24978	7590	10/29/2007		
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			EXAMINER FISCHER, JUSTIN R	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 10/29/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,380

Applicant(s)

TANNO, ATSUSHI

Examiner

Justin R. Fischer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 8, 9, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2706.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of a shell structure supported on a rim by a pair of elastic rings (claims 1, 2, 4-9, and 11-14) in the reply filed on October 12, 2007 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinnen (US 4,676,288). Zinnen is directed to a tire wheel assembly comprising a noise reducing device or emergency support member 4 having a shell structure. The reference further teaches the inclusion of corrugations on the surface of said member (define a rough surface). Additionally, Zinnen suggests that the corrugations have a depth or height H_M that is approximately equal to one-fourth of the width W between adjacent corrugations (Column 3, Lines 45-55). In this instance, though, the reference fails to expressly disclose the depth/height as falling between 0.1 and 5.0 millimeters, more preferably between 0.1 and 3.0 millimeters. However, one of ordinary skill in the art at the time of the invention would have found such an arrangement obvious in view of the general disclosure of Zinnen. In particular, Zinnen suggests that the width W between adjacent corrugations can be narrow and/or wide

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(Column 3, Lines 58-62). In the event that they are narrow, the depth of the corrugations would be extremely small since it is described as being approximately one-fourth of the width W- such an embodiment would have been expected to satisfy the broad range of the claimed invention, there being no conclusive showing of unexpected results to establish a criticality for the claimed invention.

Lastly, with respect to the independent claims, one of ordinary skill in the art at the time of the invention would have found it obvious to position said member at a height between 10 and 70 percent of the tire section height- such an arrangement is consistent with the figures of the reference and conventional positioning of similar support members. Additionally, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed arrangement.

Regarding claims 5 and 12, the corrugations of Zinnen are present over the entire axial extent of the radial outer surface, which is seen to constitute at least 20% of the entire surface area of the support member.

4. Claims 1, 2, 4, 5, 8, 9, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glinz (US 2002/0195183) and further in view of Zinnen (US 4,676,288). Glinz is directed to a tire wheel assembly incorporating a shell structure (emergency support structure) that is supported on a rim by a pair of elastic rings. While the reference fails to describe the inclusion of a roughened surface, one of ordinary skill in the art at the time of the invention would have found it obvious to incorporate such an arrangement in view of Zinnen. In particular, Zinnen teaches the

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inclusion of corrugations in an emergency support member in order to provide improved steering stability (Column 1, Lines 55-65).

As to the height of the corrugations, Zinnen suggests that the corrugations have a depth or height H_M that is approximately equal to one-fourth of the width W between adjacent corrugations (Column 3, Lines 45-55). In this instance, though, the reference fails to expressly disclose the depth/height as falling between 0.1 and 5.0 millimeters, more preferably between 0.1 and 3.0 millimeters. However, one of ordinary skill in the art at the time of the invention would have found such an arrangement obvious in view of the general disclosure of Zinnen. In particular, Zinnen suggests that the width W between adjacent corrugations can be narrow and/or wide (Column 3, Lines 58-62). In the event that they are narrow, the depth of the corrugations would be extremely small since it is described as being approximately one-fourth of the width W - such an embodiment would have been expected to satisfy the broad range of the claimed invention, there being no conclusive showing of unexpected results to establish a criticality for the claimed invention.

Lastly, with respect to the independent claims, one of ordinary skill in the art at the time of the invention would have found it obvious to position said member at a height between 10 and 70 percent of the tire section height- such an arrangement is consistent with the figures of the reference and conventional positioning of similar support members. Additionally, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed arrangement.

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Regarding claims 4 and 11, the claims define the thickness in terms of absolute values (0.4 to 1.0 mm). It is well recognized that tire dimensions are highly dependent on the tire size, and ultimately, on the specific tire being manufactured (smaller tires generally include smaller components). One of ordinary skill in the art at the time of the invention would have been able to appropriately select the desired thickness as a function of the specific tire being manufactured and the necessary emergency reinforcement. Furthermore, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed thickness values.

With respect to claims 5 and 12, the corrugations of Zinnen are present over the entire axial extent of the radial outer surface, which is seen to constitute at least 20% of the entire surface area of the support member.

Allowable Subject Matter

5. Claims 6, 7, 13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Justin R Fischer
Primary Examiner
Art Unit 1791

JRF
October 24, 2007